Claims

1. (Previously presented) A method for differentiating between foreground objects and background objects within a scene being captured through an image capture device, comprising:

emitting a ray of light from a light source toward an object of the scene;

opening an aperture cover allowing access to a sensor of the image capture device for reflected light from the light source;

closing the aperture cover after a set time, the predefined amount of time corresponding to a maximum distance traveled by the light;

generating a depth mask identifying objects within a foreground region and a background region of the scene based upon the light captured during the set time, the depth mask identifying objects within the foreground region with a first bit value and identifying objects within the background region with a second bit value; and

adjusting image capture device parameters according to bit values of the depth mask prior to capturing a subsequent corresponding image of the scene, wherein the image capture device parameters are selected from one of focus, brightness, exposure or gain, and the adjusting of the image capture device parameters being done independently in the foreground from the background.

2. (original) The method of claim 1, further comprising:

storing the depth mask in memory of the image capture device.

3. (original) The method of claim 1, wherein the light source is configured to emit infrared light.

4. (original) The method of claim 1, wherein the method operation of opening an aperture cover allowing access to a sensor of the image capture device includes,

receiving reflected light from the objects within the foreground region.

5. (Canceled)

6. (original) The method of claim 1, wherein the method operation of adjusting image capture device parameters according to bit values of the depth mask prior to capturing a subsequent corresponding image of the scene includes,

determining an optimal amount of light based upon the depth mask; and

adjusting the aperture cover to allow the optimal amount of light into the image capture device.

7. (Previously presented) The method of claim 1, wherein the image capture device parameters are adjusted through mechanical adjustments.

8. (original) The method operation of claim 1, wherein the method operation of emitting a ray of light from a light source toward an object of the scene includes,

pulsing infrared light from the light source.

9. (Previously presented) A method for adjusting image capture settings for a single image capture device, comprising:

identifying a scene;

capturing an image of the scene through the single image capture device;

generating a depth mask of the scene from data defining the image of the scene; and

adjusting pixel values of the data defining the image corresponding to objects within any one or both of a foreground region and a background region of the captured image, wherein adjusting pixel values associated with the foreground region are independent of adjusting of pixel values associated with the background region, and the adjusting of pixel values is according to bit values of the depth mask.

10. (original) The method of claim 9, wherein the method operation of generating a depth mask of the scene from data defining the image of the scene includes,

segmenting the foreground and background regions of the scene.

11. (original) The method of claim 9, wherein the data defining the image of the scene includes pixel data where each pixel is tagged with distance information.

12. (Canceled)

13. (original) The method of claim 9, wherein the image capture device is selected from the group consisting of a digital camera, a web cam, and a camcorder.

14. (original) The method of claim 9, further comprising:

displaying a portion of the image of the scene having adjusted pixel values.

15. (original) The method of claim 14, wherein the portion of the image of the scene is an image of a participant for use in an interactive gaming application.

16. (Cancel)

17. (Previously presented) An image capture device configured to provide an image of a scene, comprising:

depth logic configured to provide a depth mask associated with the scene, the depth mask configured to distinguish between foreground objects and background objects within the scene; and

image capture logic configured to adjust an image capture device setting for a characteristic associated with the image based upon a corresponding bit value of the depth mask, wherein the bit value determines whether the respective pixel is associated with one of the foreground objects and the background objects, and the image capture logic is configured for adjustments to a selected characteristic for foreground objects independently of adjustments to a selected characteristic for background objects of the image data of the scene, and

wherein the characteristic is selected from a group consisting of focus, exposure, gain, and brightness.

18. (original) The image capture device of claim 17, wherein the depth mask is a bit mask having a first logical value assigned to represent the foreground objects and a second logical value assigned to represent the background objects.

19. (original) The image capture device of claim 17, further comprising:

a sensor in communication with the depth logic, the sensor configured to receive a light signal reflected from one of the foreground objects, the receipt of the light signal indicating a location corresponding to one of the foreground objects.

20. (original) The image capture device of claim 17, wherein each logic element is one or a combination of hardware and software.

21. (original) The image capture device of claim 17, wherein the image capture device is a video capture device.

22. (original) The image capture device of claim 21, wherein the depth logic is further configured to periodically provide a depth mask for a sequence of video frames captured by the video capture device.

23. (Previously presented) The image capture device of claim 17, wherein the image capture device setting is adjusted through one of a mechanical or electrical adjustment.

24. (original) The image capture device of claim 17, wherein the image capture logic is further configured to adjust each pixel of image data of the scene.

25. (Previously presented) A system, comprising:

a computing device;

a display screen in communication with the computing device, the display screen configured to display an image of a scene;

a video capture device in communication with the computing device, the video capture device providing scene image data to the computing device for presentation on the display screen, the video capture device including,

depth logic configured to provide a depth mask associated with the scene, the depth mask configured to distinguish between foreground objects and background objects within the scene; and

image capture logic configured to adjust an image capture device setting for a characteristic associated with each pixel of the image data based upon depth information, the adjustment of each pixel being independent of adjustment to another pixel, whether associated with foreground objects or background objects, and wherein the characteristic

is selected from the group consisting of focus, exposure, gain, and brightness.

26. (original) The system of claim 25, wherein the computing device is a game console.

27. (original) The system of claim 25, wherein the depth logic is further configured to periodically provide a single depth mask for a sequence of video frames captured by the video capture device.

28. (currently amended) The system of claim 25, wherein the image capture device setting is adjusted through one of a mechanical or electrical adjustment.

29. (original) The system of claim 25, wherein the video capture device is a webcam.

30. (original) The system of claim 25, wherein the image data defines data for each pixel, the data for each pixel including distance information.

31. (original) The system of claim 26, wherein the scene image data includes an image of a person, the image of the person being incorporated into a video game for interaction therein.

32. (original) The system of claim 25, wherein the depth information is obtained from a depth mask, the depth mask defining a relative distance between an object associated with the corresponding pixel and the video capture device.